

20M Solar LED High mast 6 x 80w High power LED floods

SFSOLHM6X80LI



Design supplied with 6 x 80w Highpower LED floods Floods 6 x 400w panels

The SOLM 20M Solar LED high mast design is a robust and durable Solar lighting solution for those areas which require high quality components in overall design and performance

This model is supplied with 6 x 80w Philips Lumi LED 5050 SMD LED flood with a lumen output of 180lm/w.

Lighting parameters are programmed for 14 hour runtime

Light distribution is supplied with 30X45 degree with Smart PC lenses, designed with smart beam optics and other lens configurations are available

The battery is designed to cater for 14 hours with 2 reserve factor nights with Smart mode Solar controller MPPT Technology The batteries require 5 hours to replenish its reserves

Lithium LIFEPO4 Batteries with between 2000 - 3000 life cycles with an average life span of to 8 - 10years

20m Mast with optional side mounted cat ladder from 10m upwards

	Power	6 x 80w						
LIGHT	LED	Philips 5050 SMD						
	IP Rating	IP66						
	Flux @ CCT 5000K	6 x 14400Lm						
	CRI - Colur Rendering Index	70						
	Optics	PC lens with smart beam						
	Average Lifespan	80 - 100 000 hours						
	Operating Temperature	- 30 > + 50 Degrees						
	Mounting Height	20 meter above ground level						
	Light Distribution	30*45 degree Smart optical						
	Lumen per WATT	180 Lumen / watt						
	Pole to pole distance	100 meters						
	Lithium	Life PO4						
	Voltage	6 x 25.6v						
BATTERY	Watt Hours	6 x 1843,2 Wh - 72Ah						
	Lifespan	Over 2000 Cycles						
	Power	6 x 400w						
SOLAR Panel	Voltage	44.12V						
FAREL	Maximum current	10.91 Amp						
	Charging method	6 x Smart Mppt 20A						
	Dimming Parameters	Full load with Smart power						
	Day night sensor	Intelligent integrated						
CONTROLLER	Lighting parameters	6Hrs 100% / 8 hrs 70%						
		Temperature compensation						
	Electrical parameters	Overheating overcharging and						
	-	over discharging protections						
BATTERY CRADLE AND ENCLOSURE	3CR12 steel cabinet and powder coated Manufactured in an SABS approved facility with ISO 9001							
POLE	Galvanized 20m mast - Sectional Poles							
WARRANTY	5 years on all components - option to extend							

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This design allows for each solar panel to be rotated 360 degrees on its mounting brackets to ensure all solar panels are facing in the North position for optimal sunshine

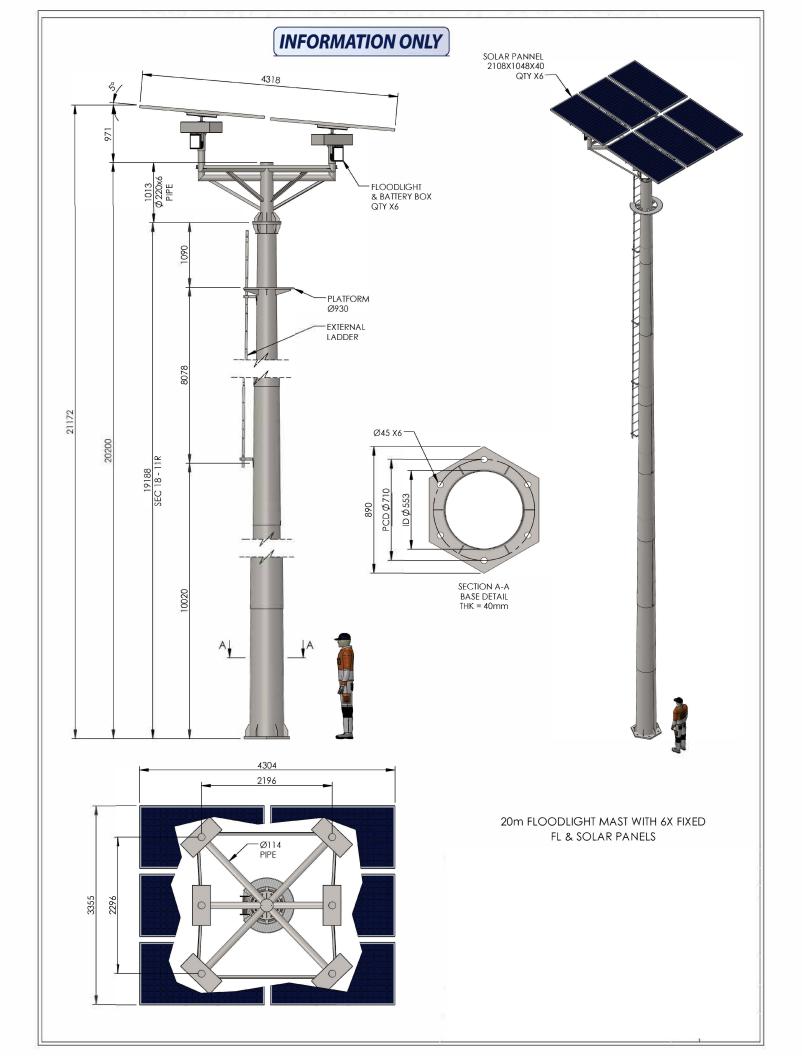
Each mast consists of 6 individual 6 x 80w Solar LED Flood Lights which are run individually

This is too ensure that should a problem arise for whatsoever reason on a single unit the remaining 5 units will remain operational until that single unit can be serviced or repaired

Solar panels will all be secured at a 5 degree inclination for the best wind loading factor on the mas



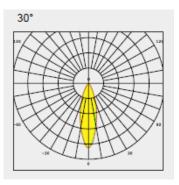
Image Illustration

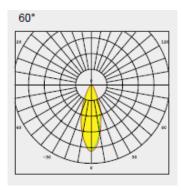


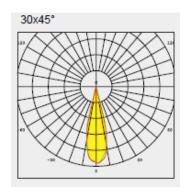
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3 Lens options

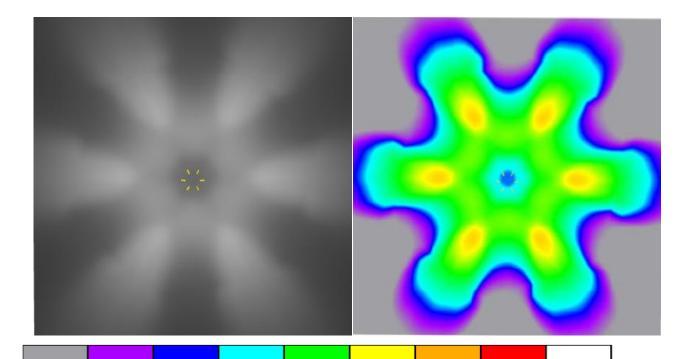






## SOLM 20M Solar LED High mast - 6 x 80w High power LED floods

No.		Designation (Correction Factor)	$\Phi$ (Luminaire) [lm]	$\Phi$ (Lamps) [lm]	P [W]
1		30x45DEG (Type 1)* (1.000)	14394	14400	80.0
*Modifie	d Technical Spe	cifications	Total: 86364	Total: 86400	480.0



2	3		4		5			10		15		2	20		25		30	
	0.70 1.25	2.04	2.85	3.41	3.56	2.18	1.22	1.15	1.55	3.04	3.34	2.99	2.21	1.52	0.89	IT	100.00 m	
	0.69 1.20	2.27	3.36	4.43	4.86	3.33	1.55	1.43	2.13	4.43	4.41	3.62	2.58	1.57	0.85			
	0.65 1.07	2.27	3.97	5.59	6.38	5.13	1.94	1.81	2.58	6.18	5.69	4.30	2.83	1.46	0.78			
	0.64 0.98	1.99	4.52	6.74	8.35	6.14	2.46	2.41	4.13	8.07	7.13	5.22	2.78	1.22	0.74			
	0.66 0.93	1.60	4.33	7.92	11	8.87	3.59	3.47	7.04	10	8.66	5.70	2.28	1.08	0.71			
	0.73 0.97	1.40	2.35	7.80	13	12	5.65	5.32	11	13	9.48	4.89	1.71	1.04	0.75			
	0.88 1.09	1.46	2.22	5.92	14	15	8.32	7.92	14	15	7.83	2.57	1.61	1.12	0.85			
	1.19 1.36	1.69	2.40	4.74	12	17	11	11	16	14	5.58	2.58	1.73	1.29	1.08			
	2.08 2.35	2.24	2.87	4.95	9.37	14	12	12	14	10	5.44	3.04	2.04	1.79	1.68			
	3.27 4.58	4.60	4.38	6.32	9.93	12	11	11	12	10	6.65	4.36	3.21	3.76	2.93			
	3.99 6.11	8.03	9.29	9.47	11	12	7.44	7.25	11	11	9.11	8.50	7.31	6.04	4.04			
	4.36 6.58	9.75	13	15	12	10	5.30	5.13	10	12	15	13	10	6.81	4.50			
	4.42 6.69	9.90	14	17	13	9.89	5.09	4.83	9.42	12	17	15	11	7.10	4.69			
	4.01 6.07	8.56	11	11	12	11	6.04	5.73	11	12	12	12	9.58	6.66	4.38			
	3.30 4.67	4.70	5.32	7.07	10	12	9.93	9.94	12	11	7.62	5.92	5.67	5.70	3.89			
	2.07 2.38	2.23	3.21	5.29	9.61	13	12	12	12	9.97	5.72	3.42	2.70	3.28	2.66			
	1.20 1.39	1.74	2.56	4.82	11	16	11	12	16	12	5.21	2.70	1.89	1.63	1.46			
	0.91 1.14	1.56	2.29	5.78	14	16	9.23	9.20	16	14	5.99	2.43	1.61	1.21	1.00			
	0.76 1.02	1.52	3.23	8.14	14	13	6.49	6.37	13	14	8.18	2.49	1.48	1.05	0.80			
	0.69 0.99	1.78	5.01	8.81	12	9.19	4.26	4.16	9.23	12	8.70	4.06	1.61	0.98	0.71			
	0.69 1.07	2.36	5.18	7.40	8.87	6.07	2.83	2.77	6.13	9.13	7.57	4.98	2.06	1.02	0.68			
	0.71 1.22	2.62	4.46	6.07	6.88	3.60	2.03	2.06	5.04	7.23	6.23	4.44	2.43	1.12	0.68			
	0.76 1.41	2.56	3.72	4.85	5.18	2.76	1.57	1.67	3.53	5.51	4.99	3.76	2.47	1.27	0.72			
	0.81 1.45	2.25	3.12	3.70	3.67	1.96	1.27	1.30	2.27	4.02	3.83	3.18	2.25	1.33	0.74			
	0.85 1.40	1.94	2.58	2.80	2.55	1.41	1.02	1.04	1.57	2.83	2.94	2.65	1.96	1.33	0.78	ΙL		
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	0.00															100	.00 m	
	Grid: 128 x	128 P	oints															
	Eav	[IX]			E <sub>min</sub> [	X]			E <sub>max</sub>	[IX]			u0				E <sub>min</sub> / E <sub>max</sub>	
	5	.41			0.5	56				17		0.1	103				0.032	

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